

CLAIMS

1. A low noise amplifier circuit comprising:
an attenuator for receiving a calibration signal and generating an attenuated calibration signal;
5 a low noise amplifier for amplifying the attenuated calibration signal in calibration mode or a functional signal in functional mode;
a comparator for comparing the calibration signal with the output of the low noise amplifier in calibration mode and generating a compensation signal indicating a deviation between the actual gain of the low noise amplifier and a
10 desired gain; and
circuitry for adjusting the gain of the low noise amplifier responsive to the compensation signal.

2. The low noise amplifier circuit of claim 1 wherein the attenuator attenuates the calibration signal by $-G$ dB, where G dB is the desired gain of the
15 low noise amplifier.

3. The low noise amplifier circuit of claim 1 wherein said circuitry for adjusting the gain comprises circuitry for modifying a biasing current of the low noise amplifier circuit responsive to the compensation signal.

4. The low noise amplifier circuit of claim 3 wherein said circuitry for
20 adjusting the gain comprises circuitry for generating the compensating current responsive to the voltage of the compensation signal.

5. The low noise amplifier circuit of claim 1 wherein said low noise amplifier has a first current path coupled to the output of the attenuator and a second current path coupled to the functional signal.

25 6. A method of controlling the gain of a low noise amplifier circuit comprising:

attenuating a calibration signal to produce an attenuated calibration signal;

amplifying the attenuated calibration signal with the low noise amplifier to produce a reference signal;

- 5 comparing the calibration signal with the reference signal and generating a compensation signal responsive to the comparison, indicating a deviation between the actual gain of the low noise amplifier and a desired gain; and
adjusting the gain of the low noise amplifier responsive to the compensation signal.

10 7. The method of claim 6 wherein the attenuating step comprises the step of attenuating the calibration signal by $-G$ dB, where G dB is the desired gain of the low noise amplifier.

 8. The method of claim 6 wherein the adjusting step comprises the step of modifying a biasing current of the low noise amplifier circuit responsive
15 to the compensation signal.

 9. The method of claim 8 wherein the adjusting step comprises the step of generating the biasing current responsive to the voltage of the compensation signal.

 10. The method of claim 6 and further comprising the step of repeating
20 the attenuating, amplifying, comparing and adjusting steps during operation of the low noise amplifier.